Electronic Supplementary Material (ESI) for Metallomics.

Postprandial zinc stable isotope response in human blood serum

Electronic Supplementary Information

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Table S1 Participant survey results

Participant	A	B	C	D	F	G	H	I
Male (M) or female (M)	M	F	F	F	F	M	M	M
Age	27	65	23	22	29	28	30	27
Omnivore, vegetarian, or vegan?	Omnivore	Omnivore	Omnivore	Omnivore	Omnivore	Omnivore	Omnivore	Omnivore
Types of meat?	Beef, poultry, pork, fish	Poultry, pork, fish, seafood	Beef, poultry, pork, fish, seafood	Beef, poultry, pork, fish, seafood	Beef, poultry, pork, fish, seafood	Beef, poultry, pork, fish, seafood, other	Beef, poultry, pork, fish, seafood	Beef, poultry, seafood
Meat consumption/week?	5 to 6	1 to 2	5 to 6	1 to 2	3 to 4	1/day	1 to 2	>1/day
Fish consumption/week?	<1/week	3 to 4	<1/week	<1/week	1 to 2	1 to 2	<1/week	<1/week
Servings of fruit/vegetables per day?	3 to 4	3 to 4	3 to 4	5 to 6	3 to 4	3 to 4	5 to 6	5 to 6
Times/week consuming fast food?	<1/week	<1/week	1 to 2	<1/week	1 to 2	1 to 2	<1/week	1 to 2
Times/week consuming sweets?	3 to 4	<1/week	1 to 2	>1/day	3 to 4	3 to 4	3 to 4	1 to 2
Times/week consuming carbohydrates?	1/day	3 to 4	1/day	>1/day	3 to 4	1/day	1/day	>1/day
Recent dietary changes?	No	Yes: no red meat	No	No	No	No	No	Yes: Within past couple weeks: mass gainer+eating more veg+rice
Digestive enzymes?	No	No	No	No	No	No	No	No
Liver diseases?	No	No	No	No	No	No	No	No
Vitamin supplements?	No	Yes: Ca+vit D	No	Yes: multivitamin 1-2/week	No	Yes: Multivitamin	No	Yes: Centrum 3-4 times/week
Pancreatitis?	No	No	No	No	No	No	No	No
Diabetes?	No	No	No	No	No	No	No	No
Crohn's?	No	No	No	No	No	No	Yes: diagnosis 2002, no flare since 2013	No
Digestive disorder?	No	No	No	No	No	No	No	No

Table S2 Biological parameters for eight participants including postprandial serum Zn concentration and mass change 90 and 180 minutes after breakfast meal consumption

Identifier	Age	Sex	Height (cm)	Weight (kg)	BMI	V_{blood} (ml)[a]	V_{serum} (ml)[b]	m_{serum} (g)[c]	$\Delta Zn_{90\text{-}min}$ (μg)[d]	$\Delta Zn_{180\text{-}min}$ (μg)[d]
A	27	M	180.5	83.5	25.6	5458	2947	3018	506	267
B	65	F	156.6	42.1	17.2	2939	1705	1746	199	445
C	23	F	160.5	67.5	26.2	3882	2252	2305	243	184
D	22	F	160.0	61.3	23.9	3664	2125	2176	319	424
F	29	F	170.5	74.5	25.6	4406	2555	2616	171	391
G	28	M	171.5	63.3	21.5	4499	2429	2487	484	665
H	30	M	179.0	76.6	23.9	5182	2798	2865	622	935
I	27	M	186.5	86.4	24.8	5774	3118	3192	682	404

[a] Blood volume calculated from height and weight using Nadler's Formula,[55] [b] whole body serum volume calculated from packed cell volumes of 0.46 for males and 0.42 for females,[56] [c] total serum mass calculated using serum density of 1.02385 g ml^{-1},[57] [d] postprandial change in total serum Zn mass after breakfast meal consumption.